

ULTRA-WIDEBAND WORKING GROUP
EXECUTIVE COMMITTEE

INITIAL POLICY STATEMENT ON PROPOSED UWB RULEMAKING

In August of 1998, the FCC issued its Notice of Inquiry (NOI) into ultra-wideband (UWB) technologies. The NOI record reflects widespread agreement that UWB technologies have the potential for creating innovative and beneficial new services involving multimedia communications, radar, and positioning. Consumers, students, rural residents, public safety personnel, industrial users, national security personnel, and anyone reliant on America's transportation infrastructure will benefit from these technologies.

Composed of developers and manufacturers, research scientists and laboratories, users and potential users of UWB devices, the UWB Working Group (UWBWG) was formed in November 1998. At the First International Ultra-Wideband Conference in September 1999, which was sponsored by the UWBWG, the membership called for prompt initiation of a rulemaking on UWB.

In its November 24, 1999, Policy Statement, the FCC announced its intention to initiate such a rulemaking "in the near future" and urged that high priority be given to "spectrum efficient technologies like UWB."

With a rulemaking at hand, the Executive Committee of the UWBWG sets forth below the Committee's initial opinions on certain key policy issues.

1. Joint testing. The Executive Committee recognizes that many spectrum stakeholders have legitimate questions about UWB products as to possible harmful effects, or the lack thereof, on existing spectrum usage. To gain the needed insights into these areas, the Committee supports formal joint tests involving UWB proponents, government spectrum users, and other interested parties. These tests should

- proceed in parallel with the rulemaking and not delay any initial rulemaking;
- be performed by credible experts;
- include an evaluation of any interaction between UWB signals and critical public safety systems such as GPS; and
- be completed in time for interested parties to comment on the results in the record of the rulemaking.

2. Types of UWB devices. The Executive Committee believes that the rulemaking should take into account the widely differing character and use of UWB devices such as use of different frequencies, indoor compared with outdoor operation, and whether the UWB energy is directed into the air or into solid objects. The Committee believes, for example, that indoor operation of low-power UWB devices offers an added safety margin against the potential for harmful interference to existing spectrum users, and that special considerations should apply in the case of ground penetrating radar. Accordingly, the rules should set forth power levels and operational constraints appropriate for different UWB technologies in different environments.
3. Measurement techniques. UWB signals should be measured for compliance with regulatory limits using procedures that are efficient, repeatable, well understood and capable of being performed at any properly qualified EMC testing laboratory.
4. Power levels and other technical standards. Pending development of appropriate rules and technical specifications for all UWB devices in all frequencies and environments, the Executive Committee urges the Commission to consider applying the Class A and Class B unintentional emissions limits currently in force under Part 15 as the limits appropriate for deployment of certain UWB devices. Accelerated deployment of subsets of UWB products with minimal potential for interference can validate the value of UWB technologies.

For further deployment, the authorization of technical standards should reflect knowledge gained from the joint testing called for in this statement, as well as the development of appropriate measurement techniques.

5. Overall goal. The Executive Committee believes that the goal of the rulemaking should be to bring the benefits of UWB technologies to the public in a timely fashion before the end of the year 2000. To this end, UWB system designers should be accorded flexibility to use any product design approach to meet any regulatory constraints.

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The UWBWG Executive Committee recognizes that many of the potential benefits of UWB technologies will be realized only if UWB developers and other spectrum users cooperate with the FCC and the NTIA to develop and exchange information. To this end, the UWBWG Executive Committee intends to work with all stakeholders to aid in the development of appropriate regulations for the rapid deployment of UWB products while avoiding harmful interference to existing radio services.

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